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ABSTRACT

A study investigating the discrepancies between teacher and administrator preferences for sixty-one inservice topics indicates that teachers perceived topics associated with motivational-attitudinal considerations to be of greater importance than did administrators and supervisors. Other differences between teachers and administrators appear to be dependent on instructional level, supervisory-administrative position, and subject matter areas. The findings recommend active involvement of teachers in the planning of inservice programs and the adaptation of programs to the various grade levels and particular subject matters. (Author/JD)

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# DISCREPANCIES IN TEACHER AND ADMINISTRATOR PREFERENCES FOR INSERVICE TRAINING TOPICS

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ABSTRACT

Data obtained from a 1977 survey of approximately 2,300 Indiana Public School teachers and a 1978 survey of approximately 1,500 Indiana Public School administrators and curriculum supervisors were used to investigate discrepancies between teacher and administrator preferences for 61 inservice training topics. The results of a multivariate analysis of variance analysis provided an indication that teachers perceived those inservice topics associated with motivational-attitudinal consideration to be of greater importance than did administrators and supervisors. Other differences between teachers and administrators were dependent on instructional level, supervisory-administrative position, and subject matter areas.

The findings provide support for the recommendations of involving teachers in the planning of inservice programs and the adaptation of programs to the various grade levels and particular subject matter areas.

An increased concern for teacher participation in planning for inservice teacher education programs is evidenced by the increasing frequency of articles appearing in the research literature during the past decade. Particular attention has been devoted to (1) cooperative planning models for inservice, (2) assessment of teacher inservice preferences, and (3) assessment of teacher perceptions about inservice experiences.

Need for inservice studies has stemmed from reported dissatisfaction of teachers with contemporary inservice activities (Rubin, 1971; Jensen, Betz and Zigarmi, 1978; Brimm and Tollett, 1974; Ogletree and Allen, 1976) at a time when teacher educators are placing a greater emphasis on inservice professional growth (Edelfelt, 1974; Burdin, 1977 and 1978). Wilen and Kindsvatter (1978), in a commentary on five selected studies, reported that inservice has rarely been supported by a substantial and continous financial commitment. They also attributed the minimal effects of inservice on instructional skills improvement to three factors: (1) teacher attitudes ranging from complacency to antagonism, (2) lack of sufficient intensity, and (3) teachers having had little opportunity for input into the nature and design of the programs.

In a South Dakota study of the attitudes of 1,239 teachers toward inservice education, Zigarmi, Betz, and Jensen (1977) concluded that (1) administrators planned or organized the majority of inservice programs; and (2) teachers faulted existing inservice programs for being poorly planned, irrelevant, not planned on the basis of needs identified by teachers, and providing no contribution to the improvement of teaching. Additional findings were that teachers believed (1) administrators to be disinterested in inservice programs,

(2) those inservice activities most frequently used were viewed as least useful, and (3) the least used types of inservice activities were perceived to be most useful. The findings of Agne and Ducharme (1977), Brimm and Tollett, and Ogletree and Allen were generally consistent with those of Zigarmi et al. with regard to administrator dominance in planning and teacher perceptions about inservice programs. Administrator dominance was also shown by the results of a 1979 survey of inservice practices in Indiana local school corporations conducted by the Department of Public Instruction: among 421 responses to an item pertaining to what level inservice education programs are determined, 37.2% responded that the decision was made at the central office level, 35.6% credited the decision to the school building level, and only 27.1% of the respondents perceived the decision was made by teachers.

Ellis (1979) querried 878 central office personnel, principals, and teachers in a stratified sample of New Hampshire school districts and found that administrators generally planned inservice programs, but that content was usually determined jointly. On the basis of information obtained from a study of 190 Virginia educator respondents, Vaughn (1975) recommended maximizing individual staff member and group involvement in all phases of inservice. Similar recommendations have been made by Ingersoll and Kleiman (1974), Comros and Masterman (1972), Johnston and Yeakey (1977), and Mahan and Hull (1975). This recommendation seems appropriate in light of the reported administrator and teacher discrepancies with regard to staff development planning. For example, Johnston and Yeakey found elementary teachers preferred teacher or group planning while administrators expressed a preference for planning to be conducted by administrators. There is some indirect evidence that such teacher involvement may improve the effectiveness of in-

service programs (King, Hayes, and Newman, 1977; McLaughlin and Marsh, 1978; and Greenwood, Mann, and McLaughlin, 1975).

A second outcome of inservice studies has been observed differences among teacher subgroups. Gickling, Murphy and Mallory (1979) used a forced choice questionnaire and found a difference between regular and resource teachers with regard to preferences about inservice education resource services applicable to mainstreaming special education students. Ingersoll, in an inservice needs assessment survey of 745 teachers from four school systems in three states, found newer teachers have a greater interest in discipline and individualizing instruction than more experienced teachers. However, Dykstra and Ryan (1978) reported few differences among teachers subgrouped according to several characteristics, experience included.

In addition to the inconsistent findings concerning teacher subgroup interests, there exist contradictions in the research about how undifferentiated teacher groups view inservice topics. In a study conducted by Howell (1973) teachers rated instruction and techniques of discipline as high level interests. Jacquith (1973) emphasized focusing inservice programs on teaching methods and subject matter areas. Still other areas of interest indicated by teachers have been discipline, motivation, and use of media (see Ingersoll's discussion of findings for France; Howell; and Harrow, Dziuban and Rothberg). In contrast to these findings, Ingersoll concluded teachers were most concerned about skills in developing pupil self and individualizing instruction.

The inconsistencies in the findings for teacher interest may well be explained, in part, by the differing teacher samples and instruments used for data collection. Ingersoll hypothesized the inconsistencies might be associated with many studies using primarily beginning teachers, but it

is also possible that differences in sample composition--elementary, middle school, or secondary teachers--may dictate the outcome for a study since grade level assignments of teachers varied for the reported studies. It is also possible that instrumentation differences could account for the variation in the findings since each study employed its own unique instrument.

Related to the instrumentation problem is the additional problem of construct interpretation. Goldberg and Mangione (1978) used a regional survey approach to query administrators and teachers of 36 school districts comprising the Wayne County Intermediate School District within the state of Michigan. The three, broad staff development categories that received the highest rankings by teachers were building pupil relationships, planning for instruction, and facilitating and implementing instructional programs. Since the category identified as building pupil relationships was comprised of the five subcategories: (1) developing student self-responsibility, (2) motivating students, (3) encouraging student self-awareness and positive self-concepts, (4) helping students with behavioral problems to learn more effectively, and (5) being sensitive to the needs and feelings of students, it is apparent that the broad categories used by Goldberg and Mangione cut across the categories used by Ingersoll and others. Thus, apparent contradictions may well result from either the misinterpretation of ill-defined constructs or the utilization of different levels of construct abstraction.

An interesting observation that resulted from the Goldberger and Mangione study was that administrator responses were very similar to teacher responses. Such an observation is not consistent with the findings of Zigarmi, Betz, and Jensen and others. If administrators assume the responsibility for inservice planning, if teachers do react in a negative manner to inservice topics of little interest, and if teacher disinterest results in minimal skill attain-

ment, it is important for administrators to be cognizant of differing perceptions and seek teacher input in planning inservice programs.

Overall, there appears to be little consistency in the research findings with respect to differences among administrators, among teachers, and between teachers and administrators regarding which inservice topics are most useful. Because of the inconsistency of the findings, which may partially be attributable to sample composition and instrumentation, few generalizations can be stated. This study explores, using a cross section of both teachers and administrators and a common instrument, how ratings of selected inservice topics may vary according to teacher and/or administrator subgroup compositions.

## Procedure

### Sample

Data used in the study were obtained from two separate surveys. Teacher data came from a 1977 survey of approximately 2,300 Indiana Public School teachers gathered in a joint effort by the Indiana State Teacher Association (ISTA) and Ball State University's Resource Center for Public School Resources (RCPSS). The teachers were selected by systematic sampling from the ISTA address listing. The respondents represented about 60% of the teachers who received a questionnaire and 7% of the total membership list.

Administrator data came from a 1978 follow-up survey of approximately 1,650 Indiana Public School administrators and supervisors. Stratified random sampling using a list provided by the Indiana Department of Public Instruction, was used to select these respondents. Only personnel with administrative assignments in individual schools, general instruction or curriculum responsibilities, and superintendents, were included in the study.

For example, school librarians, psychologists, directors of transportation, and directors of budgeting and accounting were excluded from the sample. The respondents represented about 68% of the sample who received a questionnaire.

Instrument

The form and content of the questionnaire resulted from a survey of similar instruments coupled with input from (1) two members of the ISTA administrative staff, (2) a group of Ball State faculty active in providing inservice training, and (3) a small group of teachers included in a pilot study. The finalized questionnaire assessed respondent perception of usefulness for each of 61 inservice training topics. Five response alternatives varying from "among the least useful" to "among the most useful" were provided. The items, along with the teacher and supervisor-administrator averages for each, are shown in Table 3.

Method

A preliminary analysis consisted of a multivariate analysis of variance, using three respondent classifications: teacher-administrator, central office-school, and grade level. The grade level classification consisted of elementary, middle or junior high, and high school assignments. Substantive interpretation of the results was problematic because of a tendency for some groups, particularly the supervisory-administrative group, to respond more favorably to most items. Consequently, the item responses were transformed to reflect a more relative rating. The transformation was accomplished using a deviation contrast matrix which permitted each item response by an individual to be expressed as a deviation from the average response by the individual to all 61 items. Subsequent among group comparisons for items were therefore based on average deviations.

Another modification to the preliminary analysis was the incorporation of additional classifications for both the teacher and administrator groups. These new classifications were obtained by subdividing elementary teachers into primary and upper elementary and by subdividing the junior or middle and high school teachers into four classifications based on subject matter assignments. Two subject matter assignments were the physical, biological, and mathematical sciences and the social sciences and humanities. The latter category included such subject matter areas as history, sociology, English, and foreign languages. The other two were: (1) fine arts, which included music and art, and (2) applied arts, which included business, physical and industrial education, home economics, and others.

The decision to classify teachers into major subject matter categories was made when it became apparent that through the addition of codes to the administrator data, it was possible to distinguish supervisors from administrators and to classify the supervisors according to the same subject matter areas used for teachers. The potential importance of the subject matter classification had been recognized in an earlier descriptive report of the teacher data (Schurr and Sciara, 1977). Although comparisons between teachers and supervisors were possible for the subject matter areas, insufficient information existed for classifying supervisors according to grade level.

Administrators were likewise subdivided into selected representative groups. One breakdown was separation of principal responses from assistant principal responses at the junior or middle and high school levels. A second breakdown was for superintendents, central office personnel with explicit instructional and curriculum responsibilities, and central office personnel with less well-defined instructional and curriculum responsibilities. Central office personnel with explicit responsibilities were assistant superintendents for instruc-

tion, directors of curriculum, etc. Those with less well-defined responsibilities were such individuals as supervisors and/or consultants for audio visual, instructional media, television, etc.

The procedure used to analyze the transformed and expanded respondent classification was multivariate analysis of variance. Because the design yielded nonorthogonal tests of the various sources, it was necessary to reorder effects so that the source of interest was tested when ordered last. Follow-up tests were conducted in the event an interaction or nested source of variation was significant. Once all significant sources had been identified, estimated means were obtained using a model consisting only of these significant sources (Finn, 1974). All decisions regarding significance were made on the basis of an alpha level of .05.

## Findings

The tendency observed in the initial analysis of supervisory-administrative personnel to generally rate items higher than teachers was confirmed by inspecting the overall item average for the groups. The average item ratings for elementary, junior high, and senior high teachers were 3.66, 3.61 and 3.57, respectively. The corresponding average ratings for elementary, junior high, and senior high principals were 3.80, 3.75, and 3.75. Thus, there also appeared to be a grade level trend. The highest average rating, 3.90, belonged to the junior-senior high supervisors. Central office personnel were next highest with an average of 3.86. Therefore, the largest difference between teachers and supervisory-administrative personnel was for junior-senior high teachers and junior-senior high supervisors.

A brief description and the results of the statistical analyses for the comparison of the deviation scores are shown in Table 1.

Insert Table 1 about here

As shown in Table 1, the significant interactions which confounded the main effects were: elementary vs. junior and senior high by supervisors vs. administrators, teachers vs. administrators and supervisors by elementary vs. junior and senior high, and junior vs. senior high teachers by subject matter assignment. Those not significant were: teachers vs. supervisors by subject matter assignment and junior vs. senior high by principals vs. assistants. A follow-up test for the supervisor vs. administrator interaction resulted in a significant difference between supervisors and administrators for the junior and senior high level, but not for the elementary level. Additional tests resulted in a teachers vs. supervisors and administrators difference for both the elementary and the junior and senior high levels and a subject matter difference for both the junior and the senior high teachers.

Statistically significant main effects not confounded by the interactions were school vs. central office personnel, superintendent vs. other central office personnel, and primary vs. upper elementary teachers. The junior and senior high principals vs. assistants and the more explicit vs. less explicit central office personnel comparisons were not significant.

Based on these results, estimated means were obtained by incorporating the following factors: central office vs. school personnel, superintendents vs. other central office personnel, elementary vs. junior and senior high assignment, primary vs. upper elementary teachers, elementary teachers vs. elementary supervisors and administrators, subject matter assignment, junior and senior high teachers vs. supervisors, junior and senior high supervisors vs. administrators, and junior vs. senior high teachers for each of the sub-

ject matter areas. Estimated means from this model were plotted and inspected for what seemed to be the most distinctive feature about their distribution. They were then categorized according to these features. The two focal points for the categorization were systematic differences among the teacher groups and between teachers and supervisory-administrative personnel. All categorizations presented were consistent with the statistically significant differences. However, there did exist other statistically significant differences that were judged to be of lesser importance.

The items shown in Table 2 are grouped by the assigned categories. Teacher means are shown in the first row for each item and supervisory-administrator means are shown in the second row. Combined means for the primary and upper elementary, junior high, and senior high teacher levels are also displayed in the first row. It should be noted that groups within each of the following sets were combined: elementary teachers and supervisors, more explicit vs. less explicit central office personnel, and principals and assistants at the junior and senior high levels. The combinations were made for presentation purposes since an effect to differentiate each was not employed in the estimation model, and, consequently, the means were identical. Since the focus of the study was on the comparison of inservice topics rated most useful by the various groups, the only items presented are those for which the average deviation ranked in the top 10 of all 61 averages for at least one of the subgroups. The pooled within-groups standard deviations for the items ranged from .88 to 1.02.

Insert Table 2 about here

Part A of Table 2 contains items for which the teacher means exceeded means of the supervisory-administrative personnel. The differences indicate

teachers rate topics more useful which deal with increasing student self-concept, motivation, self-directness, and attitude toward learning; and with arranging orderly progress toward an objective and coordinating group and individual instruction. Generally, it appears that teachers have relatively more interest than supervisory-administrative personnel in inservice topics dealing with motivational-attitudinal aspects of instruction and, to some extent, with topics associated with the management of an instructional program.

In contrast to the pattern shown in Part A, a comparable set of items for which supervisory-administrative personnel means exceeded those of the teachers could not be identified. Instead, as suggested by the interactions, remaining differences seemed to be dependent upon the grade level assignment and, to some extent, major subject area of the respondent.

Items shown in Part B of Table 2 represent a pattern for which supervisory personnel and junior high principal means exceeded those of a parallel teacher group, and, for which there was not an overall difference between either the high school teachers and administrators or the elementary teachers and administrators. The means for central office personnel followed the same pattern of the supervisors and junior high principals. The differences indicate that supervisors, junior high principals, and central office personnel rate more useful than junior and senior high teachers topics dealing with: (1) selecting objectives to meet goals, (2) breaking a task down to accomodate individual differences, (3) designing instruction to meet individual needs, (4) selecting tests to match objectives, (5) restructuring teaching, and (6) using student performance information to pinpoint learning difficulties, assign subsequent tasks, and provide feedback. Generally, it appears this group of

supervisory-administrative personnel view certain procedural aspects, specifically, use of student performance information and instructional planning, as more useful for inservice training than do junior and senior high teachers. Together, these items seem to reflect a relatively structured and individualized approach to instruction.

Parts C and D of Table 2 are composed of items which indicate systematic differences among the teachers according to the grade level taught. Primary grade teacher means exceeded the means of all other groups for items presented in Part D. The teachers rated topics more useful which dealt with: (1) devising instructional materials - including remedial, (2) using learning centers, multi-media methods, etc., (3) organizing classroom to emphasize rewards, and (4) recognizing special cognitive and affective problems. Except for the latter, the items in Part D seem to involve an instructional management component.

Items contained in Part C were combined because high school teacher responses to these items differed from the other teacher groups and, for the most part, from the supervisors and administrators. Topics dealing with: (1) incorporating recent subject matter developments in instruction, (2) questioning techniques to elevate students' level of thinking, and (3) promoting mutual understanding and trust were rated more useful by the group. Rated less useful were topics dealing with (1) analyzing behavioral problems, (2) resolving behavioral problems, and (3) exchanging information about students with parents. It should be noted that for this set of items, elementary and junior high teacher means were higher than supervisory and administrative personnel means for topics dealing with analyzing and resolving problem behaviors.

The differences between elementary teachers, particularly the primary, and administrators shown in Parts C and D might be interpreted in conjunction with the overall instructional management and additudinal-motivational teacher-administrator differences reported for Part A. It appears that elementary administrators do not view topics dealing with management of instruction as useful as do elementary teachers. And, assuming that dealing with behavior problems can be considered part of an attitudinal-motivational problem, it also appears elementary administrators do not view topics dealing with such aspects as useful as do elementary teachers.

The variation among the teacher groups shown in Parts C and D and, to certain items in Parts A and B, could be indicative of needs associated with different methods or models of teaching. For example, primary teachers seem to find more useful topics associated with individualizing instruction--designing, coordinating, and accommodating instruction for individuals; manipulating the learning tasks--using aids, devising materials, assigning tasks, restructuring teaching and pinpointing difficulties; and controlling the students and the environment--organizing the classroom, working with parents, and recognizing, analyzing and resolving behavior problems. To a great extent such findings seem similar to what Joyce and Weil (1972) labelled the developmental model: the teacher presents problems appropriate for the student's developmental level, guides the student, creates a rich physical environment, selects appropriate developmental activities and, generally, maintains a high degree of structure.

In this simplistic scheme, the high school teachers appear most distant with upper elementary and junior high teachers somewhere in between. Not only are high school teacher means lower on items related to the develop-

mental model, but in addition, high school teacher means are higher on items which are indicative of other models. For example, a relative preference for implementing recent subject matter developments seems to reflect the advance organizer model of Joyce and Weil. Questioning to encourage high level thinking and promoting mutual understanding (cooperating), represent components of the inquiring training model.

Items contained in Part E of Table 2 show the major difference found among the subject matter areas. Both fine arts teacher and supervisor means were higher than all other groups for: (1) discussing instructional needs with administrators, (2) communicating objectives to the public, (3) enlisting potential support, and (4) establishing expected performance levels. The high ratings most likely reflect the problematic position of fine arts in light of the austerity, back to basics, and compentency-based movements.

## Summary and Discussion

Overall, two topics were rated relatively high with respect to usefulness as inservice training topics by all teacher and supervisory-administrative groups. That is, means for the topic ranked in the top four for all but one of the subgroups. The topics were: (1) encouraging positive attitudes toward learning and (2) encouraging positive self-concepts. However, for both topics, teacher means exceeded supervisor and administrator means. These differences fit into a pattern showing higher ratings for topics dealing with motivational-attitudinal aspects, including the identification of reinforcers to motivate students and the encouragement of student self-directed behavior. The pattern was more prevalent for elementary and junior high teachers because the two groups also rated topics dealing with analyzing and resolving behavioral problems more useful than counterpart supervisory or administrator groups.

Teachers also rated topics dealing with certain administrative aspects in managing instruction higher than did supervisors and administrators. All teacher groups gave relatively higher ratings to arranging the orderly progress toward the achievement of an objective and to coordinating group and individual instruction.

Other differences between teachers and administrators depended on the instructional level, the supervisory-administrative position, and the respondent's subject matter area. Observed differences between primary teachers and other groups indicated primary teachers were more interested in instructional management topics. Subject matter supervisors, junior high principals and central office personnel tended to give higher ratings than junior and senior high teachers to items dealing with what were labelled procedural aspects of a relatively structured and individualized teaching approach to teaching. Systematic differences were not observed on such items between either the high school principals and teachers or the elementary principals and teachers.

An interpretation for the findings about these procedural items might be found in reported differences between primary and high school teachers. The differences between these two groups were interpreted to represent different models of teaching: the primary teachers employing a developmental model, the high school teachers employing one or more other models, and the upper elementary and junior high teachers displaying a position somewhere in between. Consequently, if the responses to the procedural items can be considered as indicators of teaching models, discrepencies between the junior and senior high teachers and the supervisors, junior high principals, and central office personnel could be interpreted as a disagreement between the respective pairs of groups in regard to the appropriate teaching model.

The major deviations in the topic ratings among the subject matter areas were confined to that of the fine arts. The ratings reflected relatively more concern with topics dealing with obtaining support for their instructional programs. The problematic position of fine arts in light of the austerity, back to basics and competency-based movements seemed to explain these ratings.

The relatively high ratings of all teacher groups for topics dealing with improving students attitudes toward self and learning tend to support the conclusion by Ingersoll about the high priority of topics dealing with the affective development of students. The results are less clear however, with respect to his conclusion about the higher priority of individualizing instruction as compared to maintaining discipline, motivating students, and using instructional media. There were a number of items which could be considered as relating to the latter topics, and the means for these items varied for the various teacher grade levels and subject matter subgroups. For example, means of items dealing with individualizing instruction—designing, coordinating, and accommodating instruction for individuals--were not consistently higher than items indicative of motivational and discipline topics—identifying reinforcers to motivate, analyzing problem behaviors, and resolving problem behavior. In addition, primary teachers do show a relatively high interest in topics dealing with instructional media. Discrepencies reported by Ingersoll between his and other research could very well reflect the differences among the instructional assignments of the respondents. Additionally, topics like motivation, discipline, and attitudinal aspects seem so interrelated that differentiation among them may not be meaningful. All deal with the same theme, what Goldberg and Mangione label building pupil relationships, instructional methods resulting in the on-task behavior

of students. In light of such a theme, the inconsistency in the results of the various studies is less striking.

In conclusion, there appears to be some disagreement between teachers and supervisory-administrative personnel about the usefulness of inservice training topics. Beyond a topic dealing with improving either student self-concept or attitudes toward learning, selection of a topic for inservice training might differ depending on whether teachers or supervisory administrative personnel make the selection. Teachers seem more inclined to regard topics dealing with attitudinal-motivational aspects as useful. However, beyond this tendency, the teacher preferences for topics and the differences between teacher and supervisory-administrative personnel preferences depend on the grade level, the supervisory-administrative position and, to some degree, the major subject matter area of the respondent.

These conclusions, in conjunction with the reports that in the majority of cases supervisory-administrative personnel select inservice training topics, provide some evidence that teacher dissatisfaction with such training may result from not involving teachers in the decision making process. That is, the most useful or desirable topics for teachers may not be selected if supervisory-administrative personnel select the topics. Consequently, it would seem that a desirable practice would be to obtain teacher input about topics, if success of the training is to be optimized.

Another implication of the findings is that inservice topics which teachers find most useful can vary according to the grade level and the major subject matter assignment of the teachers. Consequently, inservice training, to be most successful, may have to be directed to specific groups of teachers who share common interests.

As a result of attempting to interpret findings of the study, the authors feel the major weakness of the project resided in the topics included on the questionnaire. The topics, after the fact, were perceived as biased toward the developmental model of teaching. It is hypothesized that more variability among junior and senior high subject matter area teachers would be found if additional topics reflecting differences in their instructional procedures or models were included on the questionnaire. Also, groupings of the subject matter areas employed in the project were determined by the information provided on the questionnaire and therefore were arbitrary. It is quite possible that systematic differences among subject matter disciplines exist within each subject matter group. A better procedure might be to keep each subject matter group distinct and form groupings based on their responses. If one could identify the model used by teachers of a specific subject matter an even better procedure would be to include methodological aspects unique to that model.

REFERENCES

Agne, R. M. and Ducharme, E. R. Rearranging the parts: A modest proposal for continuing and inservice education. Journal of Teacher Education, 1977. (March-April, 28, 16-19).

Brimm, J. L. and Tollett, D. J. How do teachers feel about inservice education? Research Supplement, 1974, 31, 251-252.

Burdin, J. L. editorial, Journal of Teacher Education, 1977. (March-April), 28.

Burdin, J. L. Factors Promoting and constraining inservice education. Journal of Teacher Education, 1978 (April-June), 29, 31-33.

Comros, J. and Masterman, R. A rationale for comprehensive inservice programs, Clearing House. 1972 (March) 46, 424-426.

Dykstra, R. and Ryan, F. L. An investigation of the continuing education plans and interests of elementary classroom teachers. College Student Journal, 1978, 12, 31-39.

Edelfelt, R. A. Inservice education of teachers: Priority of the next decade. Journal of Teacher Education, 1974, 25 (February) 250.

Ellis, B. J. A study of inservice education programs in the New Hampshire Public Schools. Unpublished doctoral dissertation, Boston University, School of Education, 1975.

Finn, J. D. A general model for multivariate analysis. Chicago: Holt, Rinehart and Winston, 1974.

Gickling E., Murphy L., and Mallory D. Teachers Preferences for resource services. Exceptional Children, 1979 (March), 442-448.

Goldberg, A. and Mangione, S. Determining inservice needs of a region. Catalyst for Change, 1978 (Fall), 8, 8-11, 25.

Greenwood, P. W., Mann, D. and McLaughlin, M. W. Federal programs supporting educational change. Vol. III. The process of change. Santa Monica, California: The Rand Corporation, 1975.

Howell, J. Methodological and instructional needs of inservice teachers, unpublished manuscript, Springfield, Massachussettes Public Schools, 1973.

Ingersoll, G. M. Assessing inservice training needs through teacher responses. Journal of Teacher Education, 1976 (Summer), 27, 169-173.

Jacquith, C. E. An analysis of perceptions of junior high/middle school teachers, principals and university specialists concerning inservice education. Unpublished Ph.D. dissertation, University of Michigan, 1973.

Jensen, D., Betz, L., and Zigarmi, P. If you are listening to teachers, here is how you will organize inservice. NASSP Bulletin, 1978 (April), 9-14.

Johnston, G., and Yeakey, C. Administrators and teachers preferences for staff development. Planning and Changing, 1977 (Winter) 8, 230-238.

Joyce, B. and Weil, M. Models of teaching. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.

King, J. C., Hayes, P. C., and Newman, I. Some requirements for successful inservice education. Phi Delta Kappan, 1977, 58.

Kleiman, S. Guide for effective inservice education. Clearing House, 1974 (February) 48, 372-374.

McLaughlin, M. W., and Marsh, D. D. Staff development and school change. Teachers College Record, 1978, 80, 69-94.

Moham, M. and Hull, R. E. A model for inservice education of teachers. Educational Technology, 1975 (February) 32, 41-44.

Ogletree E. and Allen, B. Opinions of inner-city teachers of inservice meetings. Peabody Journal of Education, 1976, 54, 47-52.

Rubin, L. J. Teacher growth in perspective. In L. J. Rubin (Ed.), Improving Inservice Education. Boston: Allyn and Bacon, 1971.

Schurr, T. and Sciara, F. The ISTA/RCPSS professional education inservice needs assessment, Bethesda, MD: ERIC Document Reproduction Service. ED 161-828. November, 1977.

Vaugn, A. L. Utilizing instructional staff preferences of selected inservice processes as a source of directives for inservice education programs. Unpublished doctoral dissertation, University of Virginia, 1975.

Wilen, W. and Kindsvotter, R. Implications of research for effective inservice education. Clearing House, 1978 (April), 51, 392-396.

Zigarmi, P., Betz, L. and Jensen, D. Teachers preferences in and perceptions of inservice education. Educational Leadership, 1977, 34, 545-551.

TABLE 1

SOURCE TABLE FOR THE SIXTY-ONE ITEM
MULTIVARIATE ANALYSIS
OF VARIANCE

| Source | F | df | p< |
|---|---|---|---|
| **Main Effects** | | | |
| Resident central office vs. nonresident central office | 4.79 | 60/3188 | .0001 |
| Superintendents vs. other central office | 1.34 | 60/3188 | .0400 |
| Explicit involvement with curriculum central office vs. other central office | .96 | 60/3188 | .5600 |
| Elementary vs. junior and senior high | 14.59 | 60/3188 | .0001 |
| Junior vs. senior high | 2.45 | 60/3188 | .0001 |
| Teachers vs. supervisors and administrators | 8.68 | 60/3188 | .0001 |
| Supervisors vs. administrators | 1.53 | 60/3188 | .0050 |
| Subject area assignment (junior and senior high) | 3.35 | 180/9559 | .0001 |
| Primary vs. upper-elementary teachers | 4.78 | 60/3188 | .0001 |
| Junior and senior high principals vs. assistant principals | .95 | 60/3188 | .5900 |
| **Interactions** | | | |
| Elementary vs. junior and senior high BY teachers vs. supervisors and administrators | 11.04 | 60/3188 | .0001 |
| Elementary vs. junior and senior high BY supervisors vs. administrators | 1.85 | 60/3188 | .0030 |
| Teachers vs. administrators BY junior vs. senior high | 1.37 | 60/3188 | .0300 |
| Teachers vs. supervisors BY subject area assignment | 1.15 | 180/9559 | .0900 |
| Junior vs. senior high teachers BY subject area assignment | 1.39 | 180/9559 | .0060 |
| Junior vs. senior high teachers BY principals vs. assistant principals | .81 | 60/3188 | .8600 |

Note.-- The analysis summarized is based on data transformed to deviation scores.

TABLE 2

ITEM IDENTIFICATION AND ASSOCIATED ESTIMATED MEANS FOR PARTICULAR SUBGROUPS

| Item Number | Item Description | Group | Elementary | Junior/Senior High | | | | | Central |
|---|---|---|---|---|---|---|---|---|---|
| | | | | PM | SS/H | FA | AA | Combined | |
| | | | Pr Up Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Sp | As St |
| | | | A--Teacher estimated means exceed supervisor and administrator: general | | | | | | |
| 6 | Encourage positive learning attitudes | Tch | 84 88 86 | 86 91 88 | 93 82 88 | 93 62 78 | 81 77 79 | 88 78 | |
| | | Sup/Adm | 81 | 69 | 68 | 58 | 59 | 72 74 64 | 73 76 |
| 39 | Encourage positive self-concepts | Tch | 72 71 72 | 42 42 42 | 63 50 56 | 87 60 74 | 61 59 60 | 63 53 | |
| | | Sup/Adm | 60 | 36 | 50 | 67 | 54 | 60 57 52 | 53 46 |
| 14 | Identify reinforcers to motivate | Tch | 50 40 45 | 37 41 39 | 35 49 42 | 38 44 41 | 36 43 40 | 36 44 | |
| | | Sup/Adm | 25 | 18 | 21 | 20 | 18 | 29 27 19 | 25 23 |
| 37 | Encourage self-directed behaviors | Tch | 32 40 36 | 26 27 26 | 36 35 41 | 59 20 40 | 33 35 34 | 38 29 | |
| | | Sup/Adm | 18 | 03 | 18 | 16 | 11 | 21 26 12 | 26 10 |
| 20 | Arrange for an orderly progress toward objective | Tch | 52 40 46 | 32 50 41 | 41 31 36 | 22 30 26 | 45 48 46 | 35 40 | |
| | | Sup/Adm | 30 | 24 | 19 | 9 | 28 | 25 33 20 | 32 31 |
| 3 | Coordinate group and individual instruction | Tch | 44 43 44 | 17 19 18 | 43 35 39 | 31 20 26 | 15 25 20 | 26 25 | |
| | | Sup/Adm | 22 | - | 12 | - | - | 16 - | 11 11 |

TABLE 2--Continued

ITEM IDENTIFICATION AND ASSOCIATED ESTIMATED MEANS FOR PARTICULAR SUBGROUPS

| Item Number | Item Description | Group | Elementary | Junior/Senior High | | | | | Central |
|---|---|---|---|---|---|---|---|---|---|
| | | | | PM | SS/H | FA | AA | Combined | |
| | | | Pr Up Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Sp | As St |
| | B--Supervisor means exceed teachers: junior - senior high | | | | | | | | |
| 19 | Design program to meet individual needs | Tch | 68 56 62 | 31 42 36 | 48 48 48 | 18 46 33 | 39 58 48 | 34 49 | |
| | | Sup/Adm | 58 | 47 | 59 | 44 | 60 | 53 41 52 | 59 57 |
| 18 | Break down tasks to accomodate differences | Tch | 39 35 37 | 21 25 23 | 31 21 26 | 18 34 26 | 24 21 22 | 24 25 | |
| | | Sup/Adm | 34 | 33 | 36 | 36 | 33 | 40 20 34 | 38 34 |
| 28 | Provide student achievements feedback on regular basis | Tch | 4 24 14 | 16 19 18 | 12 12 12 | 14 20 17 | 2 24 13 | 11 19 | |
| | | Sup/Adm | 18 | 37 | 31 | 36 | 32 | 25 24 34 | 30 28 |
| 30 | Restructure teaching for reteaching | Tch | 39 39 39 | 26 22 24 | 12 19 16 | 10 6 8 | - 11 0 | 9 14 | |
| | | Sup/Adm | 31 | 41 | 32 | 25 | 17 | 29 17 29 | 25 27 |
| 29 | Use performance data to pinpoint difficulties | Tch | 33 30 32 | 27 11 19 | 14 5 9 | - 21 8 | - 8 - | - 5 | |
| | | Sup/Adm | 23 | 26 | 17 | 15 | 4 | 14 17 16 | 28 20 |
| 31 | Use performance data to assign subsequent tasks | Tch | 37 25 31 | 15 5 10 | 23 7 15 | - - - | - 6 - | 2 3 | |
| | | Sup/Adm | 21 | 32 | 37 | 10 | 18 | 15 14 24 | 32 20 |
| 10 | Select objectives matching long-range goals | Tch | - - - | 1 15 8 | 14 12 13 | 10 26 18 | 0 20 10 | 6 18 | |
| | | Sup/Adm | 15 | 23 | 28 | 32 | 24 | 20 22 27 | 28 32 |
| 5 | Maintain an orderly class | Tch | 16 11 14 | 30 31 30 | 13 - - | 36 - 21 | 24 7 15 | 26 - | |
| | | Sup/Adm | 10 | 48 | 16 | 38 | 32 | 23 27 34 | - 35 |
| 44 | Select tests to match objectives | Tch | - - - | 9 26 18 | 18 19 18 | - - - | - 18 6 | 0 10 | |
| | | Sup/Adm | 27 | 37 | 39 | 1 | 26 | 11 11 26 | 10 27 |

TABLE 2—Continued

ITEM IDENTIFICATION AND ASSOCIATED ESTIMATED MEANS FOR PARTICULAR SUBGROUPS

| Item Number | Item Description | Group | Elementary | Junior/Senior High | | | | | Central |
|---|---|---|---|---|---|---|---|---|---|
| | | | | PM | SS/H | FA | AA | Combined | |
| | | | Pr Up Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Cm | Jr Sr Sp | As St |
| | E—Fine arts differences | | | | | | | | |
| 59 | Discuss instructional needs with administrators | Tch | - - - | - - - | - - - | 40 38 39 | 13 - 4 | 12 8 | |
| | | Sup/Adm | - | - | - | 30 | - | 2 1 1 | - - |
| 60 | Communicate objectives to public | Tch | - - - | - - - | 0 - - | 33 31 32 | - - - | 2 1 | |
| | | Sup/Adm | 5 | - | - | 30 | - | - 3 | - 3 |
| 12 | Establish expected performance levels | Tch | - - - | - 15 5 | - - - | 27 31 29 | 2 8 5 | 5 11 | |
| | | Sup/Adm | 10 | 17 | - | 45 | 21 | 19 10 | 25 27 |
| 56 | Enlist parental support of instructional program | Tch | 42 27 34 | 29 10 20 | 17 15 16 | 67 47 57 | 26 18 22 | 35 22 | |
| | | Sup/Adm | 32 | 17 | 13 | 52 | 19 | 23 31 25 | 14 22 |

Note.—Subgroup codes are interpreted as physical and mathematical sciences (PM), social science and humanities (SS/H), fine arts (FA), applied arts (AA), primary (Pr), upper elementary (Up), junior high (Jr), senior high (Sr), combined (Cm), supervisor (Sp), other central office (As), and superintendent (St).

—The entries are 100 times larger than the actual values.
--All negative entries are represented by a hyphen.

TABLE 2—Continued

ITEM IDENTIFICATION AND ASSOCIATED ESTIMATED MEANS FOR PARTICULAR SUBGROUPS

| Item Number | Item Description | Group | Elementary | Junior/Senior High | | | | | | | | | | Central | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PM | | SS/H | | FA | | AA | | Combined | | | |
| | | | Pr | Up | Cm | Jr | Sr | Cm | Jr | Sr | Cm | Jr | Sr | Cm | Jr | Sr | Sp | As | St |
| **C—Senior high teacher differences** | | | | | | | | | | | | | | | | | | | |
| 22 | Incorporate recent subject matter | Tch | - | 7 | 2 | 10 | 30 | 20 | 14 | 31 | 22 | - | 27 | 13 | 29 | 33 | 31 | 14 | 30 | | | | |
| | | Sup/Adm | | | - | | | - | | | - | | | - | | | 5 | 5 | 2 | - | - | - |
| 35 | Question to encourage higher level thinking | Tch | 14 | 35 | 24 | 49 | 58 | 54 | 36 | 60 | 48 | 20 | 30 | 25 | 23 | 30 | 26 | 32 | 44 | | | | |
| | | Sup/Adm | | | 25 | | | 35 | | | 29 | | | 6 | | | 7 | 33 | 24 | 19 | 15 | 33 |
| 34 | Promote mutual understanding and trust | Tch | 26 | 22 | 24 | 25 | 38 | 32 | 22 | 38 | 30 | 31 | 57 | 44 | 28 | 36 | 32 | 26 | 42 | | | | |
| | | Sup/Adm | | | 22 | | | 25 | | | 23 | | | 37 | | | 25 | 24 | 28 | 28 | 19 | 19 |
| 8 | Analyze problem behaviors | Tch | 45 | 34 | 40 | 38 | 25 | 32 | 26 | 8 | 17 | 56 | 22 | 39 | 32 | 8 | 20 | 38 | 16 | | | | |
| | | Sup/Adm | | | 21 | | | 14 | | | 0 | | | 22 | | | 3 | 33 | 30 | 14 | 8 | 12 |
| 9 | Resolve problem behavior | Tch | 61 | 49 | 55 | 55 | 31 | 43 | 52 | 22 | 37 | 80 | 19 | 50 | 62 | 15 | 38 | 62 | 22 | | | | |
| | | Sup/Adm | | | 38 | | | 30 | | | 24 | | | 37 | | | 26 | 40 | 33 | 29 | 30 | 29 |
| 57 | Exchange information with parents | Tch | 48 | 31 | 40 | 39 | 11 | 25 | 21 | 7 | 14 | 45 | 3 | 24 | 26 | 2 | 13 | 33 | 5 | | | | |
| | | Sup/Adm | | | 30 | | | 32 | | | 21 | | | 31 | | | 20 | 25 | 21 | 26 | 19 | 38 |
| **D—Primary teacher differences** | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Recognize special cognitive and affective problems | Tch | 64 | 47 | 56 | 16 | 36 | 26 | 38 | 17 | 28 | 6 | 17 | 12 | 8 | 12 | 10 | 17 | 20 | | | | |
| | | Sup/Adm | | | 20 | | | 24 | | | 26 | | | 9 | | | 8 | 24 | 25 | 17 | 16 | 18 |
| 43 | Devise instructional materials | Tch | 45 | 16 | 30 | 12 | 4 | 8 | 30 | 25 | 28 | - | 13 | 2 | 26 | 1 | 14 | 15 | 11 | | | | |
| | | Sup/Adm | | | 12 | | | 2 | | | 21 | | | - | | | 8 | 9 | 10 | 7 | 4 | - |
| 40 | Use learning centers, audio-visual aids, etc. | Tch | 46 | 26 | 36 | 11 | - | 1 | 23 | 16 | 20 | - | 19 | 7 | 36 | 13 | 24 | 16 | 10 | | | | |
| | | Sup/Adm | | | 24 | | | - | | | - | | | - | | | - | - | - | - | 3 | - |
| 2 | Organize classroom to emphasize rewards | Tch | 49 | 24 | 36 | 27 | 28 | 28 | 36 | 13 | 24 | 30 | 29 | 30 | 22 | 24 | 23 | 29 | 24 | | | | |
| | | Sup/Adm | | | 32 | | | 27 | | | 27 | | | 29 | | | 23 | 24 | 26 | 26 | 36 | 21 |

TABLE 3

QUESTIONNAIRE ITEM DESCRIPTION
AND MEAN RESPONSES

| Mean | | Item | |
|---|---|---|---|
| Tch | Adm | Number | Description |
| 3.42 | 3.77 | 1. | Behaving in a manner which is consistent with the legal rights and responsibilities of teachers. |
| 3.94 | 4.11 | 2. | Organizing the classroom environment to emphasize rewards rather than punishments. |
| 3.99 | 3.93 | 3. | Coordinating individual and group instruction and supplementary activities within the confines of scheduling constraints. |
| 3.11 | 3.55 | 4. | Maintaining classroom records to facilitate classroom management. |
| 3.74 | 4.06 | 5. | Establishing procedures to maintain an orderly class. |
| 4.43 | 4.53 | 6. | Implementing strategies to encourage positive student attitudes toward learning. |
| 3.32 | 3.50 | 7. | Determining when and how to apply group methods of discipline. |
| 3.93 | 3.99 | 8. | Analyzing the problem behaviors of students. |
| 4.07 | 4.17 | 9. | Implementing procedures to resolve individual behavior problems. |
| 3.67 | 4.04 | 10. | Selecting instructional objectives which are relevant to long-range goals. |
| 3.34 | 3.89 | 11. | Stating instructional objectives in terms of observable student behaviors. |
| 3.54 | 4.00 | 12. | Establishing expected student performance levels for instructional objectives. |
| 3.42 | 3.81 | 13. | Using cognitive (e.g., ability and achievement) and non-cognitive (e.g., attitudinal, value, and sociological) information about students to establish priorities for goals and objectives. |
| 4.06 | 4.08 | 14. | Identifying individual and group reinforcers which can be used to motivate students. |
| 4.00 | 4.03 | 15. | Recognizing students with special cognitive (e.g., learning disabilities) or affective (e.g., emotional) problems who need the attention of school and community specialists. |
| 3.13 | 3.48 | 16. | Determining whether the learning task identified in an objective requires primarily memorization, formation of a new concept, problem solving, synthesis, etc. |
| 3.59 | 3.93 | 17. | Identifying the prerequisite skill and knowledge necessary for a student to achieve an objective. |
| 3.92 | 4.15 | 18. | Breaking down a learning task into components in order to accommodate students with different skills and abilities. |
| 4.15 | 4.37 | 19. | Designing instructional programs to meet the individual needs of students. |
| 4.06 | 4.12 | 20. | Arranging instruction so that students can move in an orderly manner toward the achievement of an objective. |
| 3.62 | 3.91 | 21. | Applying learning principles when planning and guiding learning activities. |
| 3.76 | 3.77 | 22. | Incorporating recent subject matter developments into the instructional process. |
| 3.59 | 3.56 | 23. | Experimenting with different methods of teaching. |
| 3.45 | 3.75 | 24 | Applying knowledge of child and adolescent development when planning and guiding learning activities. |
| 3.68 | 3.68 | 25. | Using newly developed curriculum procedures and materials. |
| 3.67 | 3.73 | 26. | Evaluating the appropriateness of instructional materials (e.g., textbooks). |
| 3.64 | 3.92 | 27. | Collecting information on a regular basis concerning student progress toward the achievement of instructional objectives. |
| 3.76 | 4.08 | 28. | Providing feedback to students on a regular basis concerning their progress toward achieving instructional objectives. |
| 3.83 | 4.00 | 29. | Using performance information to pinpoint the nature of learning difficulties. |
| 3.89 | 4.08 | 30. | Restructuring instruction when reteaching is necessary. |
| 3.80 | 4.04 | 31. | Using information about student performance to assign subsequent learning activities (e.g., remedial and sequential). |
| 3.22 | 3.40 | 32. | Interacting with students from a different social and ethnic background than theirs. |
| 3.65 | 3.63 | 33. | Employing group activities to promote widespread student participation. |
| 3.91 | 4.08 | 34. | Interacting with students in ways to promote mutual understanding and trust. |
| 3.94 | 4.08 | 35. | Using techniques of questioning to encourage higher levels of student thinking (e.g., analysis, synthesis, and evaluative thinking). |
| 3.26 | 3.58 | 36. | Presenting clear and logical verbal instruction (e.g., lectures). |
| 3.98 | 4.00 | 37. | Employing procedures to encourage self-directed student behaviors. |
| 3.46 | 3.59 | 38. | Incorporating value clarification activities into the instructional process. |
| 4.24 | 4.36 | 39. | Using techniques to encourage positive student self-concepts and feelings of worth. |
| 3.88 | 3.84 | 40. | Using learning centers, audio-visual aids, television, games, and other multimedia methods to promote student learning. |
| 3.67 | 3.71 | 41. | Incorporating community facilities and resource people into the instructional process. |
| 3.37 | 3.38 | 42. | Using para-professionals, tutors, and other instructional personnel in conducting classroom related activities. |
| 3.85 | 3.92 | 43. | Devising instructional materials and activities, including remedial. |
| 3.56 | 3.98 | 44. | Selecting tests which match stated objectives. |
| 3.14 | 3.52 | 45. | Constructing objective cognitive test items (e.g., multiple-choice and matching). |
| 3.06 | 3.53 | 46. | Constructing non-objective cognitive evaluation procedures (e.g., essay items, performance assessments, and product evaluation). |
| 2.74 | 3.26 | 47. | Interpreting commercial achievement test scores. |
| 2.38 | 2.72 | 48. | Calculating normative scores such as means, medians, percentiles, stanines, etc. |
| 3.00 | 3.28 | 49. | Constructing non-cognitive assessment devices (e.g., attitudes and values). |
| 3.44 | 3.73 | 50. | Improving present assessment devices and procedures. |
| 3.53 | 3.97 | 51. | Interpreting the results of testing and evaluation to students, their parents, and to other professionals in terms each can understand. |
| 3.49 | 3.79 | 52. | Using student feedback (e.g., opinions) to evaluate and revise instruction. |
| 3.59 | 3.96 | 53. | Using student achievement data collected throughout the instructional process to evaluate and revise instructional materials and procedures. |
| 3.28 | 3.54 | 54. | Determining whether objectives have been obtained for which performance standards cannot be set (e.g., non-cognitive objectives). |
| 3.73 | 3.88 | 55. | Devising accurate, objective methods for periodically summarizing and reporting student achievement (e.g., grades). |
| 3.90 | 4.09 | 56. | Implementing procedures to enlist parental support of your instructional program. |
| 3.87 | 4.11 | 57. | Exchanging information about students with parents on a regular basis (e.g., progress difficulties, special problems). |
| 3.26 | 3.48 | 58. | Interacting with parents from a different social and ethnic background than theirs. |
| 3.61 | 3.82 | 59. | Discussing their instructional successes, needs and problems with school administrators in a non-threatening environment. |
| 3.48 | 3.84 | 60. | Communicating their goals and objectives to the public. |
| 3.43 | 3.39 | 61. | Receiving pertinent information about the activities of government, school administration, community, and professional organization (s). |